

# DATA SHEET

## ZERO OHM RESISTORS

ZOR Series

1/6W AND 1/4W

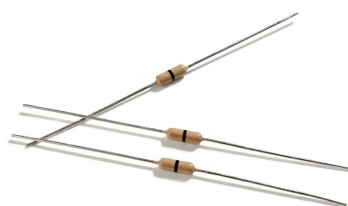
RoHS compliant & Halogen Free



**YAGEO**

Product specification – August 13, 2021 V.0





## APPLICATIONS

- All general purpose applications

## FEATURES

- AEC-Q200 qualified
- High stable performance and high reliability
- Suitable for automatic machine insertion
- RoHS compliant and halogen free

## ORDERING INFORMATION

Part number of the zero ohm resistors is identified by the series, power rating, tolerance, packing, temperature coefficient, forming and resistance value.

## PART NUMBER

|            |            |          |          |          |            |           |
|------------|------------|----------|----------|----------|------------|-----------|
| <u>ZOR</u> | <u>-25</u> | <u>-</u> | <u>T</u> | <u>-</u> | <u>52-</u> | <u>0R</u> |
| (1)        | (2)        | (3)      | (4)      | (5)      | (6)        | (7)       |

### (1) SERIES NAME

ZOR Series

### (2) POWER RATING

-12 = 1/6W

-25 = 1/4W

### (3) TOLERANCE

- = Based on spec.

### (4) PACKAGING

R = Reel Pack

B = Bulk

T = Box Pack

### (5) TEMPERATURE COEFFICIENT OF RESISTANCE

- = Based on spec.

### (6) FORMING

26- = 26mm

FT = FT Type Forming

52- = 52.4mm

PN = PANAsert

M = M-Type Forming

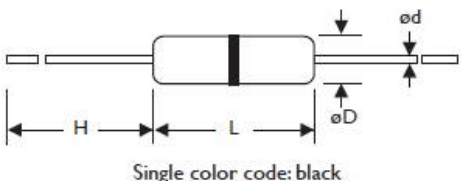
AV = AVIsert

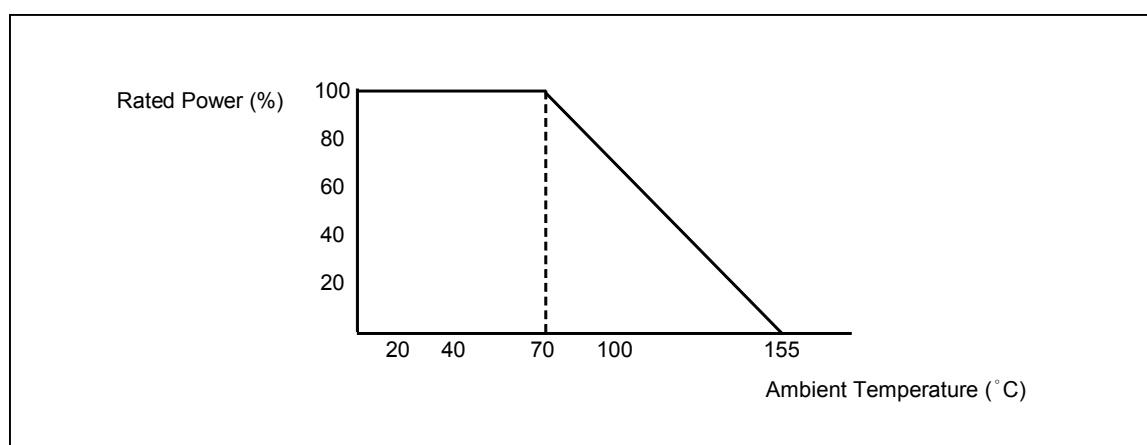
MT = MT Type Forming

### (7) RESISTANCE VALUE

0R = 0Ω

**DIMENSIONS**

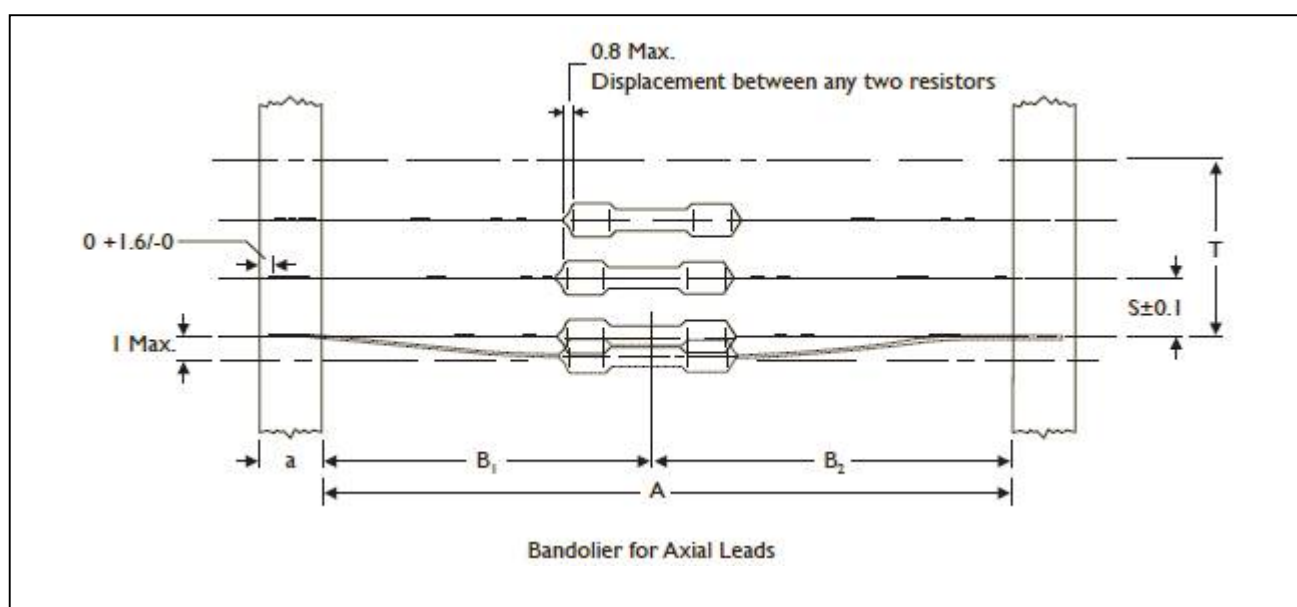
| Unit: mm                                                                                                          |               |               |               |              |                 |
|-------------------------------------------------------------------------------------------------------------------|---------------|---------------|---------------|--------------|-----------------|
|  <p>Single color code: black</p> | <b>Normal</b> | <b>L</b>      | <b>ψD</b>     | <b>H</b>     | <b>ψd</b>       |
|                                                                                                                   | ZOR-12        | $3.3 \pm 0.4$ | $1.8 \pm 0.3$ | $28 \pm 2.0$ | $0.45 \pm 0.05$ |
|                                                                                                                   | ZOR-25        | $6.3 \pm 0.5$ | $2.3 \pm 0.3$ | $28 \pm 2.0$ | $0.55 \pm 0.05$ |

**DERATING CURVE****ELECTRICAL CHARACTERISTICS**

| CHARACTERISTICS                      |             | ZOR-12, ZOR-25                                                                                     |
|--------------------------------------|-------------|----------------------------------------------------------------------------------------------------|
| Maximum Resistance                   |             | 10mΩ or less                                                                                       |
| Min. Insulation Resistance           | Dry         | 10,000MΩ                                                                                           |
|                                      | Wet         | 100MΩ                                                                                              |
| Min. Dielectric Withstanding Voltage | Atmospheric | 500V RMS                                                                                           |
|                                      | Reduced     | 325V RMS                                                                                           |
| Insulation Flammability              |             | Resistor insulation is self extinguishing within 10 Sec. after externally applied flame is removed |
| Current Rating                       |             | 10 AMPS at 70°C for 1/4W<br>8 AMPS at 70°C for 1/6W                                                |
| Operating Temperature Range          |             | -55°C to +155°C                                                                                    |

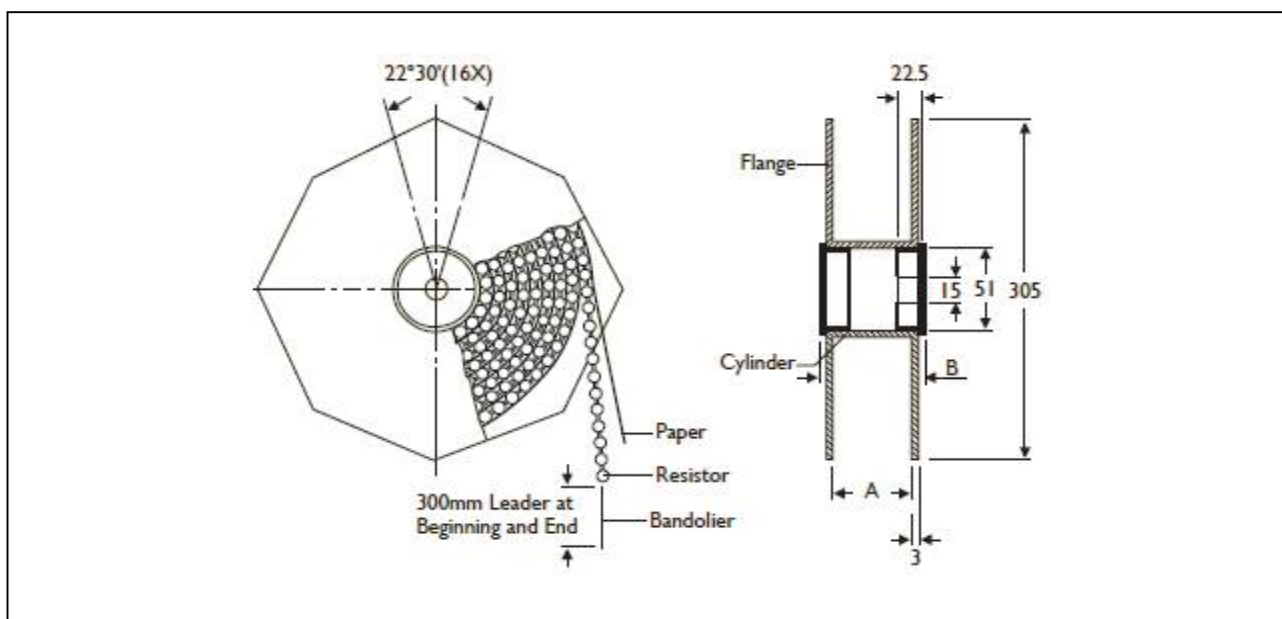
**TEST AND REQUIREMENTS**

| TEST                          | TEST METHOD      | PROCEDURE                                                      | APPRAISE                                  |
|-------------------------------|------------------|----------------------------------------------------------------|-------------------------------------------|
| Solderability                 | IEC 60115-1 4.17 | 245±5°C for 3±0.5 Sec.                                         | 95% Min. coverage                         |
| Solvent Resistance of Marking | IEC 60115-1 4.30 | IPA for 5±0.5 Min. with ultrasonic                             | No deterioration of coatings and markings |
| Robustness of Terminations    | IEC 60115-1 4.16 | Direct load for 10 Sec. in the direction of the terminal leads | ≥2.5Kg(24.5N)D                            |

**AXIAL / REEL TAPE SPECIFICATION**

Unit: mm

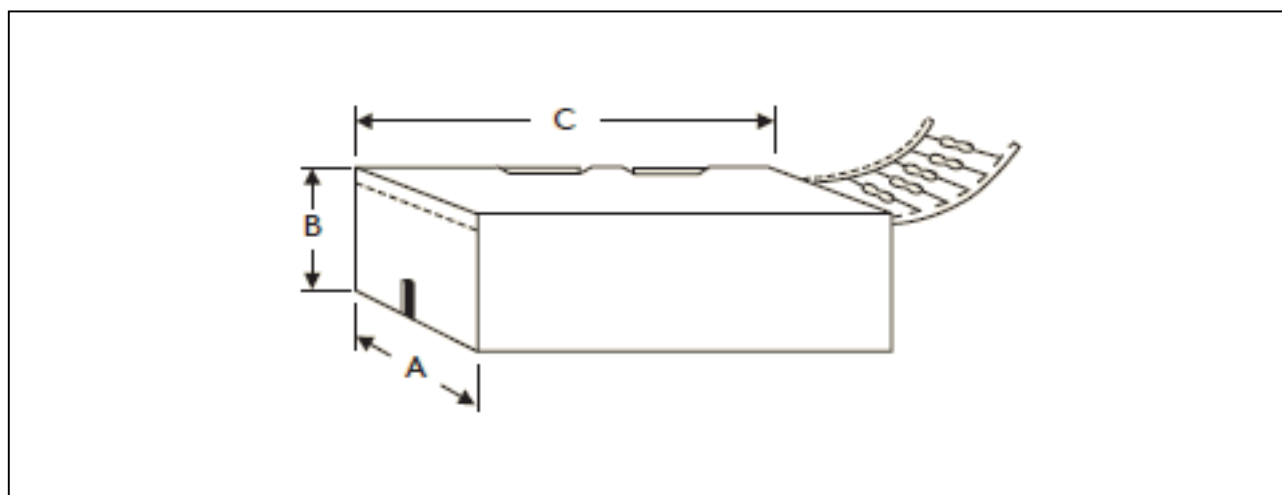
| Normal | a       | A          | B1-B2 (Max.) | S (spacing) | T (max. deviation of spacing)                |
|--------|---------|------------|--------------|-------------|----------------------------------------------|
| ZOR-12 | 6 ± 0.5 | 52.4 ± 1.5 | 1.2          | 5           | 1 mm per 10 spacing,<br>0.5 mm per 5 spacing |
|        |         | 26.0 ± 1.5 | 1.0          |             |                                              |
| ZOR-25 | 6 ± 0.5 | 52.4 ± 1.5 | 1.2          | 5           |                                              |
|        |         | 26.0 ± 1.5 | 1.0          |             |                                              |

**TAPE ON REEL PACKING**

TYPE

Unit: mm/piece

| Normal | Across Flange(A) | B    | Quantity Per Reel |
|--------|------------------|------|-------------------|
| ZOR-12 | 66.5             | 75.5 | 5,000             |
| ZOR-25 | 66.5             | 75.5 | 5,000             |

**TAPE ON BOX PACKING**

TYPE

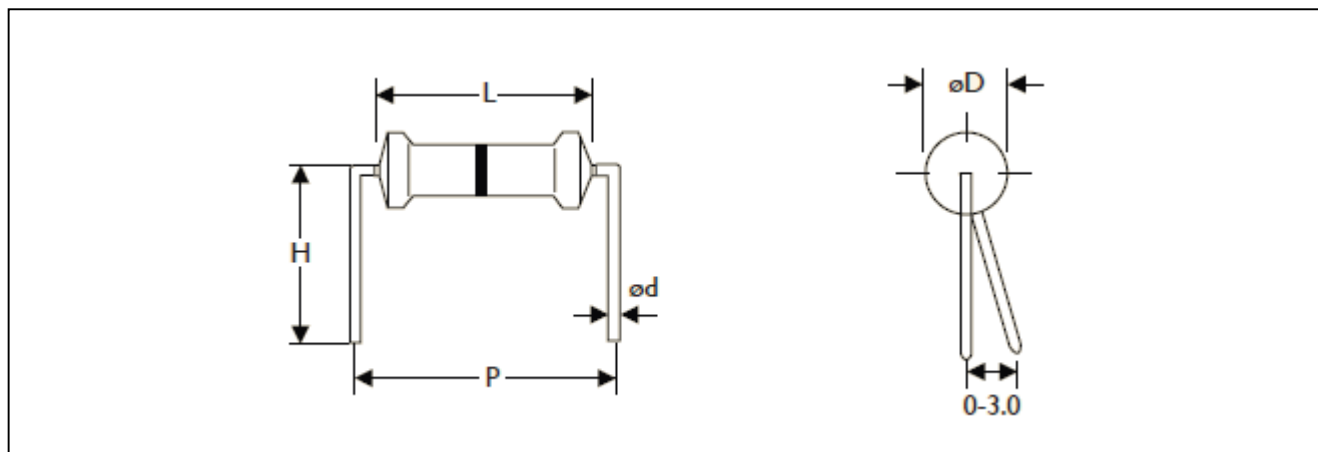
DIMENSIONS

Unit: mm/piece

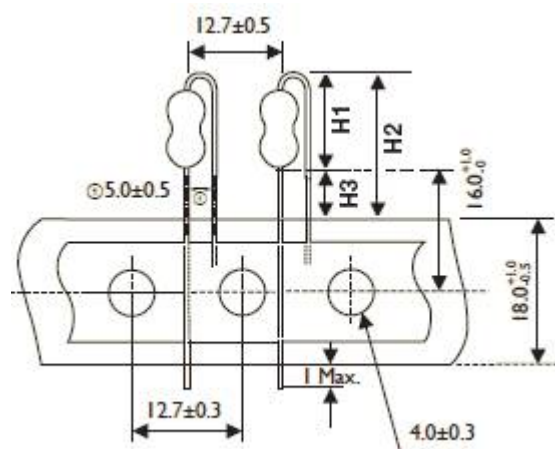
| Normal | A  | B   | C   | Quantity Per Box |
|--------|----|-----|-----|------------------|
| ZOR-12 | 48 | 102 | 255 | 5,000            |
| ZOR-12 | 81 | 70  | 260 | 5,000            |

**BULK PACKING**

| Normal | Piece/Per Inner Box | Bag/Per Inner Box | Piece Per Bag |
|--------|---------------------|-------------------|---------------|
| ZOR-12 | 10,000              | 10                | 1,000         |
| ZOR-25 | 10,000              | 10                | 1,000         |

**FORMING****M TYPE**

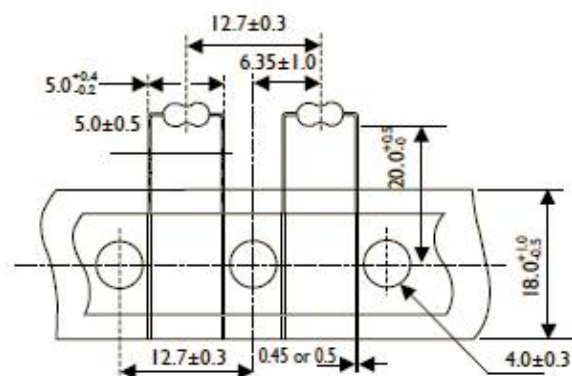
| TYPE   | DIMENSIONS |           |             |          |          | Unit: mm |
|--------|------------|-----------|-------------|----------|----------|----------|
| Normal | L          | ψD        | ψd          | P        | H        |          |
| ZOR-12 | 3.3 ± 0.4  | 1.8 ± 0.3 | 0.45 ± 0.05 | 6.0 ± 1  | 10.0 ± 1 |          |
| ZOR-25 | 6.3 ± 0.5  | 2.3 ± 0.3 | 0.55 ± 0.05 | 10.0 ± 1 | 10.0 ± 1 |          |

**FT TYPE (Taping Pack)**

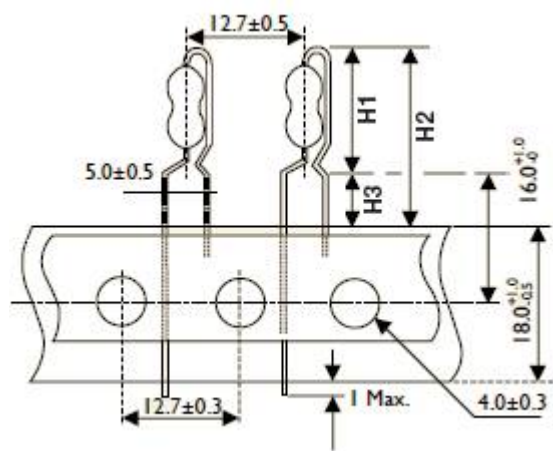
| TYPE   | DIMENSIONS |         |         | Unit: mm |
|--------|------------|---------|---------|----------|
| Normal | H1 Max.    | H2 Max. | H3 Max. |          |
| ZOR-25 | 10         | 18.5    | 8.5     |          |

**MT TYPE (Taping Pack)**

Rated Watts : 1/6W

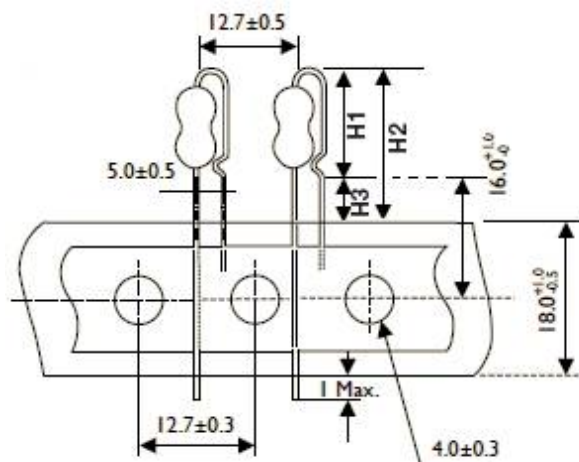


## PN TYPE (Taping Pack)



| TYPE   | DIMENSIONS |         |         | Unit: mm |
|--------|------------|---------|---------|----------|
| Normal | H1 Max.    | H2 Max. | H3 Max. |          |
| ZOR-25 | 13         | 21.5    | 8.5     |          |

## AV TYPE (Taping Pack)



| TYPE   | DIMENSIONS |         |         | Unit: mm |
|--------|------------|---------|---------|----------|
| Normal | H1 Max.    | H2 Max. | H3 Max. |          |
| ZOR-25 | 11.5       | 20      | 8.5     |          |

**REVISION HISTORY**

| REVISION  | DATE         | CHANGE NOTIFICATION | DESCRIPTION                         |
|-----------|--------------|---------------------|-------------------------------------|
| Version 0 | Aug. 2, 2021 | -                   | - First issue of this specification |

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